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AUTHOR Lira, Juan R.
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ABSTRACT

Since a review of the literature shows that reading comprehension is primarily a reasoning, thinking process, a procedure called P. L. C. R. E.--an acronym for predicting, locating, organizing, remembering, and evaluating textual material--is suggested as offering a sound theoretical framework on which to base active comprehension instruction. Examples are given of ways to teach each step that will make reading comprehension an active process. Teacher modeling of active comprehension procedures as opposed to teacher questioning for factual recall is suggested as a valuable method for teaching comprehension. (MKM)

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Active Comprehension in Progress

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Active Comprehension in Progress

Literacy in America appears to one of society's major items of concern. According to the U.S. Bureau of the Census (1979), an illiterate individual is one who cannot read and write in any language. The 1969 national figures (excluding Hawaii and Alaska) indicated that 1,433,000 Americans fell within this category. More recently, the 1970-1971 and 1974-75 evaluations in reading by the National Assessment of Educational Progress (Tierney and Lapp, 1979) suggested that inferential comprehension, especially among 13 and 17-year old students, was on a slight decrease.

National assessments have been complemented by statewide literacy measurements. Reading - Texas Assessment of Essential Objectives (1978) reported that less than 75% of a randomly selected sample of 10,000 sixth graders and 8,000 eleventh-grade students could distinguish between facts and nonfacts. The former group also experienced difficulty drawing logical conclusions and predicting future outcomes. Additionally, the latter population of students found it cumbersome to make generalizations based upon given information or assumptions. These particular capabilities have been identified as comprising part of a reading comprehension model by different researchers in reading (Guszak, 1978a; Pearson and Johnson, 1978).

The preceding information suggests that reading comprehension is of utmost importance. Even though this concept may be difficult to define, certain reading specialists agree on a basic definition. Guszak has defined comprehension in reading as "... thinking skills that are applied prior to, during, and after the visual scanning task by which written language is converted into associated meanings. Pictures, titles, headings, and other elements serve as cues" (p. 57). Guszak's view has been reinforced by Singer (1980), who describes comprehension as "... a continuous process of formulating and searching for answers to questions before, during, and after reading" (p. 227).

The evidence thus indicates that the more familiar one is with the selection to be read, the quicker the comprehension process can be set in motion. This phenomenon was verified by Ausubel (1960), who worked with two groups of 40 undergraduate students. On a multiple choice test concerning a selection, which was of equal unfamiliarity to both groups, the treatment group performed significantly better than the control group. This performance was attributed to the fact that the experimental group's material contained an introductory background section for the learning passage. This introduction was presented at a much higher level of abstraction, generality, and inclusiveness than the latter passage itself. It was designed to serve as an organizing focus for the content (steel material) and to relate it to existing cognitive structures. The control group's introductory passage contained no conceptual material that could serve as an ideational framework for organizing the particular substance of the material.

According to Ausubel, the usefulness of the advanace organizers can be ascribed to two factors. These were:

> (a) the selective mobilization of the most relevant existing concepts in the learner's cognitive structure for integrative use as part of the subsuming focus for the new learning task, thereby increasing the task's familiarity and meaningfulness; and (b) the provision of optimal anchorage for the learning material in the form of relevant and appropriate subsuming concepts at a proximate level of inclusiveness (p. 271).

Reading is apparently, to a great extent, a reasoning process, in which the student uses his linguistic, experiential, and conceptual schemes to organize information and predict meaning. He reads to determine whether the information contained in symbols confirms, negates, or adds to his existing set of information. Lira (Ed 177 520), in his review of pscyholinguistic research in reading, arrived at similar conclusions.

During the reading act, an effective reader often reflects on what he has read. This process aids in evaluating meaning being acquired and thus determines whether or not prior information should be interpreted differently (Guszak, 1978a). Efficacious comprehension, then, appears to be greatly influenced by the degree of correspondence that exists between the author's and the learner's experiences, concepts, vocabulary, language patterns, and meaning cues (Thonis, 1976). Also very important for the learner is his ability to hold prior thoughts as new ones are added, as well as his skill in associating experiences and concepts to those emerging in symbols (Guszak, 1978a).

Research explanations of theoretical constructs at times appear to be misinterpreted and consequently misapplied (Samuels and Pearson, 1980). Reading comprehension is no exception. In observing reading and social studies instruction over a year's time from grades 3 through 6 in 24 classrooms, that were in 13 different school systems in central Illinois, Durkin (1978-1979) found that teachers generally served as interrogators, who were primarily concerned in determining the accuracy of youngsters' responses. Additionally, these educators were found to be excellent task-assigners, who were extremely preoccupied about covering content and having children master facts. Finally, none of the teachers who were observed saw social studies as a means of improving children's comprehension ability.

While observing teachers in their classrooms, other researchers have arrived at similar conclusions. McDonald and Zaret (1967), as well as Guszak (1967), found that teachers tended to do most of the talking, nearly all of the questioning, and a majority of the verbal evaluating of pupil responses. The investigators also determined that approximately two-thirds of teacher comprehension questions required remembering outcomes. Guszak's own study indicated that remembering outcomes were most often concerned with minute facts.

In later research, Guszak (1968) further established that students could apparently become very successful at anticipating the nature of comprehension questions, since most were answered correctly on the first try. Aschner et al. (1965), as well as McDonald and Zaret (1967), found that inferential types of questions (predicting/extending) comprised less that 15 percent of teacher questions.

Inferential questions apparently are not the only type of questions infrequently utilized during reading comprehension instruction. Guszak (1968) ascertained that only about 15 percent of the questions posed by the teachers who were monitored were evaluative in nature. Furthermore, these queries focused primarily in establishing whether or not a student had liked the story. This investigator also discovered that less than one-half of one percent of the questions posed by specific second-, fourth-, and sixth-grade teachers required organizational skills.

At this point, it seems appropriate to ask, "What kind of impact does teacher questioning as has been described have on students' reading comprehension?" One need only refer to the introductory section of this paper for an answer. Reading - Texas Assessment of Educational Objectives (1978) indicated that fewer than 75% of a randomly selected sample of 10,000 sixth graders and 8,000 eleventh-grade students could distinguish between facts and nonfacts. The former group also demonstrated difficulty in arriving at logical conclusions and predicting future outcomes. In addition, the latter group of learners found it troublesome to formulate generalizations based upon given information or assumptions.

Other research efforts have yielded additional information concerning the effects of "narrow and limited reading comprehension instruction." In her study, involving sixth and eight graders processing factual and conclusive statements, Sullivan (1978) discovered that poor readers appeared to be more literal, focusing upon nouns and verbs in isolation, rather than on word clusters. The latter elements included qualitative terms such as "some storms", "most storms", and "great damage" (p. 712).

Additionally, poor readers were found to have difficulty relating past knowledge to the reading material.

Apparently, teachers can then play a significant role in either developing or delimiting students' reading comprehension abilities. It seems that teachers can sharply improve their comprehension skills, if they thoroughly familiarize themselves with a particular framework of comprehension and internalize the specific observable behaviors of the various skills. Too, they will seemingly need to strive to plan questions which call for the various behaviors in a systematic fashion (Guszak, 1978b).

Effective and efficient reading comprehension instruction needs to be systematic and thoroughly understood by the teacher. P. L. O. R. E. appears to offer a sound theoretical framework on which to base active comprehension instruction. Devised by Guszak (1978a), this acronym stands for Predicting, Locating, Organizing, Remembering, and Evaluating textual material.

Prediction may be the most significant comprehension skill, since quite often in real life, one may establish his course of action upon the predictability of certain circumstances. For example, a guest lecturer, who is to speak on bilingualism and reading to a group of his colleagues, would normally prepare himself as thoroughly as possible ahead of time, in order to be able to hopefully provide some constructive comments on the issue at the time of the meeting. These comments could conceivably consist of the presentation, as well as answers to questions posed to him.

In order to obtain real predictions, educators apparently need

to learn how to formulate questions which may not have any verifiable answers. An example of this situation is described below.

Background: The sixth-grade students have read about Dave, who is running and wearing sneakers, gym shorts, and a T-shirt.

Teacher: What team do you think Dave is on?

Students (in unison): Track team.

Teacher: Very good. Let's turn the page and find out.

Now consider the following teacher question for the same reading selection:

Teacher: Let's suppose that Dave doesn't really belong to the track team. Why, then, might he have been running?

Students: (Provide a variety of answers. For example, some may say that he was running merely because he liked to jog.)

Prediction means the ability to anticipate either convergent or divergent outcomes. In terms of reading, convergent thinking includes reconstructing specific facts, generalizations, principles, and laws in response to the printed and pictorial clues in the text. As people become more knowledgeable and apply this knowledge to reading, they tend to become increasingly capable of predicting the contents of a selection correctly (Guszak, 1978a, p. 62).

Divergent prediction, or creative thinking, involves the individual's ability to anticipate the unexpected. For example, children could be asked to predict what might happen to Dave, who was mentioned in the previous situation, if he were to continue running through a busy street intersection. The responses could possibly range from encountering a parade to meeting up with a presidential motorcade.

Divergent prediction skills can also prove to be highly desirable when a student is confronted with a problem solving situation, or when he needs to explain why story characters might maintain certain points of view (p. 63). The following incident appears to illustrate this point. Dave, who likes to jog for 45 minutes each evening, has a History exam the following morning. Since he needs to study a great deal in order to get prepared, he cannot decide whether or not to go run. His problem in deciding is greatly influenced by the fact that whenever he does not run, Dave feels sluggish and irritable. The solution to this problem would apparently require the use of students' divergent prediction abilities.

After the reader has formulated his initial predictions, he needs to verify them. This process may be conducted through the use of locating skills. Students can be guided to locate specific information, such as the sentence with the main idea of the story, or a section describing some specific detail in the story. Identifying major theses, as well as their supporting details, may prove to be highly profitable for learners, especially because this information frequently helps to provide breadth and substance to a selection (p. 64).

Students may also find it very advantageous to learn how to locate and use information found in specific book parts. These elements may include such items as titles, stories, introductions, tables of contents, etc. Skill in using the various parts of a book seems to help the children locate information more efficiently (p. 65). For example, in the story about Dave the runner, mention could be made about a "stress fracture." If no meaningful explanation was provided

in the textual material, the student could conceivably look for the definition of the term in the glossary of the book.

Locating information accurately appears to be a skill that encompasses numerous sources of information. Being competent in the use of reference aids such as dictionaries, encyclopedias, telephone books, and newspapers can also prove to be an invaluable skill in finding certain kinds of data. It seems important to note that the learner's ability to alphabetize accurately plays a major role in the successful use of reference aids such as those mentioned above (p. 65).

In an attempt to arrange the located information in a meaningful manner, the student apparently needs to utilize organizational skills. One of the most useful of these seems to involve having the learner retell the essential elements of a story that he has read. This procedure appears to be very helpful in providing structure to the material (p. 66). Bruner (1961) has reinforced the importance of understanding the structure of information by stating that this ideational schema aids one in readily relating future knowledge to previously acquired comprehension.

Organizational skills in reading include more than recounting the textual events. Students may also be directed into outlining, either orally or in writing, a sequence of sentences, paragraphs, or a story. The organization may also consist of drawing a cartoon or writing a formula (e.g., shark + swimmers = danger). Guszak (1978a, p. 67) has found such strategies very successful with children.

Remembering information after it is organized may be necessary at times. A critical factor to note is the quality, and not the

quantity, of questions, which a teacher may pose to a student concerning material that was read. Since certain information does apparently need to be retained in order to associate other data meaningfully, it seems imperative for the instructor to critically evaluate that specific material to be memorized by the learner (p. 67). In working with students at the elementary, secondary, and college level, this writer has found that explaining to them the reason for having to memorize certain information appears to help immensely in their developing a positive attitude toward the task. To be sure, the learners need to recognize a meaningful purpose for completing the assignment.

Remembering may encompass different types of information. It might be important for a student to remember the content of one or more sentences; for instance, "Dave likes to run. Mr. Johnson, his coach, runs with him." (What is it that Dave and Mr. Johnson like to do?) It may also be significant to remember specific incidents in a story (Guszak, 1978a, p. 68).

Part of becoming a successful, independent reader also seems to rest on the student being able to evaluate critically the material read. This critique may be based upon either the internal consistency of the selection, or it may be the result of an evaluation according to external criteria. This latter form of assessment should extend beyond the student's opinions. He may be guided to establish the desirability of a certain character or situation; or, he might also be directed in determining whether a particular story is fictional or nonfictional by analyzing the degree of reality, fantasy, or exaggeration which may be found in it (p. 68).

The previous information suggests that the foundation for a comprehension-centered reading program is psycholinguistic in nature. Watson (1979) stated that reading-thinking begins before the book is opened, by the reader's past experiences influencing his interaction with print. These experiences may include the learner's knowledge, prejudices, and interests, as well as previous successes and failures with reading encounters.

Active reading comprehension apparently also incorporates the use of language. Using his stock of background knowledge and skills, the learner generally selects certain pieces of written information on which to focus. He bases his predictions on the material and then continues reading in order to confirm, reject, or alter anticipated meanings. Goodman (1976) considers strategies such as these as highly characteristic of efficient and effective readers.

Effective reading comprehension consists of more than reacting to the text duirng the reading act. Comprehension also appears to play a significant role after the reading of the selection, since at this time the learner may critically assess the merits of the story or any part of it in terms of either internal or external criteria (Singer, 1980).

Having discussed how reading and thinking may occur in terms of predicting, locating, organizing, remembering, and evaluating material read, it appears to be worthwhile to delve into the actual behavior patterns exhibited by poor and by successful readers. Seifert (1980) found that the level of material assigned to two groups of similar students seemed to influence greatly the number of questions they

asked. When readers in the control group were indiscriminately handed material (often at their frustration level), they asked very few questions about it. On the other hand, when the treatment group read passages at either their independent or instructional reading level, they not only asked more questions, but asked more concept and hypotheses questions than their counterparts. The need for students to be assigned material appropriate for their individual capabilities appears to be obvious. Assigning content to learners at their instructional level would apparently influence to a significant degree whether or not they comprehended the passage adequately.

Other investigators have also reviewed numerous studies dealing with reading comprehension. Golinkoff (1975-1976) concluded that successful comprehenders tended to employ a scan-for-meaning pattern, which could be flexibly applied to suit their varied purposes. Thus, these individuals apparently treated reading as a process through which information about events and relations in the world could be gained. Poor readers were found to generally read text in a word-by-word fashion, with a minimum of textual organization. Additionally, these persons tended to be inflexible to variations in task demands and frequently used a minimum-sized unit. As a consequence, these readers often sounded as though they were calling out a grocery list during oral reading.

To help students accomplish successful involvement with reading, the teacher apparently needs to play a highly significant and active role. Daily observation must be the primary means of student assessment (Guszak, 1978a). In addition, learners need to be provided with numerous

opportunities to read daily (Smith, 1978). During these instances, close evaluation of their performance by the teacher is critical.

Besides insuring that the pupils interact with textual material at their instructional level (Guszak, 1978b), the instructor, at least initially, may need to model specific questioning behavior for different content. These examples should aid the learners in formulating individual questions under different circumstances (Singer, 1980).

According to Singer, this phase-out/phase-in strategy starts with teacher-posed questions. The instructor guides the learners through a whole lesson, demonstrating which questions to ask and the process of thinking to go through in reading and comprehending text. To complete the instructional procedure, the teacher must present future lessons, in which the students eventually formulate their own questions before, during, and after the reading. Singer has referred to this operation as "..active comprehension..." (p. 226).

Active comprehension can be achieved through the use of several strategies. One of these involves asking the learners a question which generates other questions. The purpose behind this process is to set a problem-solving, or reasoning process, in motion, which will hopefully aid the students in resolving the issues set forth. The following example provided by Schwartz and Sheff (1975) appears to illustrate this procedure very effectively.

Fossils Tell the Earth's Story

Scientists can find out many things from the skeletons. Sometimes the bones show signs that they were broken while a dinosaur was living. The dinosaur may have broken a bone in a fight.

Then the bone grew together again as broken bones do. Sometimes the bones show that they were broken by some animal's big sharp teeth.

Posing a problem.

Teacher: Read the title. From the title what do you think you'll be reading about?

Keith: "Fossils Tell the Earth's Story"

Lance: Ten hundred years ago, the people that live now, they weren't there at that time.

Teacher: O.K. That's certainly possible.

Reasoning while reading.

Teacher: Read the first sentence only.

Ricky: "Scientists can find out many things from the skeleton."

Teacher: (Initially literal meaning must be discussed and clarified, as a foundation on which to build divergent thinking. Teacher asks the following questions.) Where are the scientists getting their information from?

Ricky: The skeleton.

Teacher: Can they find out much or a little?

Joe: A lot.

Posing a new problem.

Teacher: Who wants to give us a new idea of what you think they can find out from the skeleton?

Joe: Their shapes, what they look like.

Reasoning while reading and verifying.

Teacher: Those are good ideas. Let's read the next sentence to find out exactly.

Keith: "Sometimes the bones show signs that they were broken while the dinosaur was living."

Teacher: That's unusual. I found out something I didn't know. What did you find out? (By this statement the teacher demonstrated her own curiosity about new facts. She serves as a model, clearly illustrating that a reader is expected to react to new ideas.)

Lance: The dinosaur's bones are broken.

Posing the next problem.

Teacher: A dinosaur's bones are broken! How can a dinosaur's bones get broken? I can think how my bones might get broken, but how can a dinosaur's bones get broken?

Lance: Earthquake. When the ground goes up...

Ken: I have a better idea...when they fight.

Teacher: Those are both possibilities.

Ricky: When they rot.

Teacher: (Ricky's answer is not supported by the text. There must be further verification of the literal content.) Were the dinosaur's bones broken when he was living or dead?

Ricky: Dead.

Teacher: Go back and look at the sentence and see what it tells you.

Ricky: Living.

Teacher: Do bones rot when the dinosaur is living or when he is dead?

Ricky: When he is dead.

Teacher: Lance gave us an idea that earthquakes could break bones.

Ken suggested it might have happened in a fight. What else...

Joe: It could have fell off a cliff.

Reasoning while reading and verifying.

Teacher: These are all good ideas. Let's finish the paragraph and find out how the dinosaur's bones can get broken according to this story.

Joe: "The dinosaur may have broken a bone in a fight. Then the bone grew together again as broken bones do. Sometimes the bones show that they were broken by some animal's big sharp teeth."

Teacher: Which of the things we spoke about before did you just read about?

Ken: The fight.

Teacher: How else did it say they got broken?

Joe: In a fall.

Teacher: Yes, they could. But how else did the paragraph tell us they got broken? (After the reading of the text, the teacher discourages responses based solely on experiences. This is in contrast to the hypothesizing which is desirable before reading.)

Lance: By an animal's teeth.

Posing a problem.

Teacher: In a way dinosaurs are like us, then. How are they like us?

Reasoning while reading.

Joe: They're fighting too.

Teacher: Yes, that's true. Also, when we break our bones they get better, they mend. Did the dinosaur's bones get better?

Keith: Yes.

Teacher: Where does it tell us they get better?

Keith: "When they get broken, the bones heal together again."

Joe: "They grow together again." (While Ken was using semantic clues and substituting "Heal" for "grow", Joe responded to what was specifically stated.)

Ken: No, but they don't put bones in a cast (pp. 152-153).

After the children have read the title of the selection, the teacher-student interaction is initiated by the instructor. It should be noted that following each set of questions, the teacher asks for a range of answers to them and the reasons for these responses. Within this framework, the instructor is mindful of the range of comprehension activities to be reinforced. It is only that the learners are instructed in the use of these skills successively, as they endeavor to understand each whole paragraph. Students learn to predict outcomes and locate information, as well as to organize material in terms of identifying main ideas and their supporting details. Additionally, the students have the opportunity to derive inferred meanings and to evaluate the internal consistency of the story.

As is evident at the end of the paragraph, some questions are still unanswered. Singer (1980) reported that the teacher seeking

an entire range of answers, even if one of them coincides with his views, serves as an effective means of eliciting information which may be confirmed or negated by further reading. Stimulated by their own questions and answers, the students then are expected to finish reading the selection. During this time, they have the opportunity to "check out" the answers to their questions.

Teacher behavior is another significant aspect of this situation which seems to merit further comments. During the entire teacher-student exchange, the educator never told a learner that his answer was incorrect. Rather, partially relevant remarks were accepted, and then students were guided into formulating more accurate explanations. Inaccurate responses were handled by directing the child to evaluate for himself the veracity of his statements. The heightened amount of student participation appears to have been due, at least in part, to the teacher's guidance during the lesson and also to the amount and quality of student-to-student interaction. In several instances, pupils reacted to each other's comments by adding to and/or revising previous statements. These reactions were based on material which they had read.

Evidence indicates that this writer's conclusions have some foundation. In order to establish the effects of a teacher-centered discussion and a student-content oriented interaction, Riley (1980) reported the results of two different teacher-student interchanges concerning a poem by Ben Johnson (see Figure 1, p. 19). The teacher-oriented exchange consisted of asking students questions designed to elicit the "right" answer (the teacher's version). Generally,

Figure 1

The Noble Nature

It is not growing like a tree
In bulk, doth man better be;
Or standing long an oak
three hundred year.
To fall a log at last
dry, bald and sere.
A lily of a day
is fairer far in May
Although it fall and die
that night.
It was the plant and flower
of light
In small proportion we just
beauty see;
And in short measures life
may perfect be (p. 716).

the process of thinking which was being utilized by the student was not considered, and the amount of student-to-student interaction was nonexistent. An example of the discussion which occurred helps to illustrate this point.

Teacher: Okay, take out your assignments and your books; turn to page 361. Fred, you d the first one, okay? What does not make man better mean?

Fred: Uh. Growing, um. Is that right?

Teacher: Partly right. Mary, can you add to what Fred said? He got part of it right.

Mary: (Proudly) Growing is right. But bulk or size doesn't make a person better, either. I know some big people who aren't any better than small people.

Teacher: Uh ... okay. That's a pretty good answer. Now let's go on to the next one. Why don't you read the question and the answer? (p. 716)

The student-centered exchange employed a questioning guide constructed by classroom teachers according to procedures recommended by Herber and Nelson (1975). Statements at the literal, interpretive, and applied levels of thinking were formulated carefully. At the literal level, students were directed to identify from a list of statements those which contained information found in the poem. An example is "Growing as a tree does not make man better" (p. 718). To verify their choice, the learners were instructed to consult the poem.

Selecting statements which appeared to contain "hidden meanings" that might be in the poem comprised the interpretive level task. Again, the children were directed to check the poem before making a final selection. "Size and strength do not determine worth" (p. 718) is a typical example of a statement at this level of thinking.

At the applied level, the youngsters were asked to select from a series of statements those with which they agreed and were related to the poem. An illustration is "Beauty is in the eye of the beholder" (p. 718).

That the emphasis of the discussion was on the student and his

interaction with the content is evidenced by the following examples. The situation described typifies interaction at the different levels of thinking.

Literal Level

Statement 1) from guide: "Growing as a tree does not make man better."

Teacher: How did group one respond?

Student: We checked it.

A. Teacher: Can you show us where it says that in the poem?

Student: Yeah. Right where it says, "It is not growing like a tree / in bulk, doth make man better be."

B. Teacher: Is there any disagreement with that?

Student: (Pause) Yes.

C. Teacher: Can you explain?

Student: I think that it means that being big or bulky is the important thing. It could have read, "Growing like a skyscraper doth not make man better be," or anything large. I think the whole thing has to do with size. It's just that trees are big.

D. Teacher: I hadn't really thought of that. Let's look for evidence in the poem that might support some other statements (pp. 717-718).

The importance of the teacher's role seems to be obvious. This individual apparently made a conscious effort to recognize students' responses, to infer processes underlying those responses, and to value students' initial answers as ones to build one. Additionally, the

instructor encouraged the learners to arrive at generalizations relevant to their personal lives.

The effectiveness of active reading comprehension procedures has been evaluated further by other researchers. Helfeldt and Lalik (1976), while working with two groups of fifth grade students, found that the youngsters who interacted with the teacher in a questioning interchange prior to, during, and after the lesson scored significantly (.05 level) higher on the Interpretation subtest of the Van Wagenen Analytical Reading Scales than youngsters who did not have this kind of experience. In the latter group, the instructor merely asked the questions assigned as part of the lesson, and student questioning was not encouraged. In another study, Rhodes (1977) found that students, whoe were directed into actively comprehending short stories, performed significantly better on a test consisting of literal and interpretive questions than control groups who had teacher preposed or teacher postposed, or no teacher questions formulated.

Comprehension is apparently the major purpose for reading, since people generally try to make sense of (or organize) their environment in order to deal with it successfully. Successful reading experiences seem to depend greatly on the kind of thinking (or reasoning) that readers perform as they process print. If the interpretation achieved by the student coincides with that intended by the author, then appropriate comprehension has occurred. On the other hand, if these interpretations do not coincide adequately, a great deal of frustration on the learner's part may result.

In an attempt to accurately guide the interaction between a student

and the reading material, it seems important for the teacher to recognize that there may be certain author assumptions which may or may not match the learner's capabilities. For example, because of the author's experiential background and interest, he may write about a topic at a particular conceptual level in order to present a certain point of view. The discourse might involve a specific choice of vocabulary, linguistic patterns, and meaning cues. It is obvious, then, that the author would expect the learner to possess certain reading and comprehension skills. To the degree that the student did have the requisite skills, it appears that effective comprehension could take place. This particular point of view has been reinforced by Horn (1980) in his description of "A Communication Model," which illustrates the possible areas where communication between the author of any piece of written material and the student who is to read the selection could occur.

The role of the teacher in guiding the student on how to actively comprehend is apparently crucial. Through close daily observation, the educator should be able to determine when there is a "mismatch" between the child and the material he is to read. Corrective procedures could involve assigning text at the student's insturctional level, as well as directing him on how to "actively comprehend" the passage.

In order to provide adequate instruction in "active comprehension," the teacher needs to understand at least one model of comprehension thoroughly and the behaviors associated with the respective skills. P. L. O. R. E. (Predicting, Locating, Organizing, Remembering, and Evaluating) appears to be a valid alternative to utilize when processing print, since it logically describes the sequence of steps which people

may employ in an attempt to understand their environment. Because comprehension viewed from this vantage point is student-content oriented, the learner may need some direction on how to formulate initial predictive type questions about the selection. Also, he may require guidance in the evaluation of the text in order to confirm, negate, or adapt his anticipated meanings. It is expected that with practice, the student would be able to formulate his own questions and their answers as he processed print.

During the time that the instructor is providing instruction concerning the active comprehension process, it seems to be highly significant that he make a conscious effort to understand his student's thinking processes. This may involve asking the student to explain the reason for his response, as well as having him indicate the portion of the material which influenced him to arrive at a particular conclusion. Teacher encouragement and curiosity of this type, without creating the threat that the student will be ridiculed for making unusual responses, seems to play a crucial role in the learner continuing to strive to comprehend actively the material.

Active comprehension then appears to be an extremely effective and efficient means of helping individuals to process print. It provides an opportunity for the learner to become actively involved in finding answers to his own questions. Smith (1978) has succinctly described this phenomenon as "Prediction means asking questions - and comprehension means getting these questions answered" (p. 66). It thus seems that only by the reader using his background knowledge and linguistic competence, along with graphophonic, syntactical, and sematic cues,

can effective comprehension of textual material occur (Smith, 1979; Goodman and Burke, 1980). The statistical data cited at the beginning of this paper indicate that the utilization of active reading comprehension strategies should be seriously considered in all subject matter areas requiring reading. It would be totally erroneous to conclude that this view of comprehension applies only to reading from a basal text, since efficient and effective reading is an essential interdisciplinary skill needed for success both in school and in life.

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